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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,191	12/22/2004	James R. Blodgett	213222.00093	7492

27160 7590 12/07/2006

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EXAMINER

CHOE, HENRY

ART UNIT PAPER NUMBER

2817

DATE MAILED: 12/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/519,191	<b>Applicant(s)</b> BLODGETT, JAMES R.	
	<b>Examiner</b> Henry K. Choe	<b>Art Unit</b> 2817	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2004.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 5-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5, 7 and 8 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 5, 7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Anvari (Fig. 1).

Regarding claims 5 and 7, Anvari (Fig. 1) discloses a feedforward amplifier comprising an amplifier portion (100-115) including a main signal path (100, 102-107, 114, 115), a feedforward signal path (100, 101, 108-114), a signal cancellation loop (100, 102-106, 109, 108, 101), an intermodulation cancellation loop (107, 111-114), and a detector-controller portion (switch 213, all the elements below switch 213) including a signal power detector/processor (301-308, 310, 311, 200) and a switch (213) and wherein the switch (213) is operable on start-up to connected the signal power detector/processor (301-308, 310, 311, 200) so that it is operable to balance the signal cancellation loop (100, 102-106, 109, 108, 101) so as to minimize signal power in the feed-forward signal path (100, 101, 108-114) and thereafter is connected so as to minimize intermodulation in the main signal path (100, 102-107, 114, 115) downstream of the intermodulation cancellation loop (107, 111-114).

Regarding claim 8, Anvari (Fig. 1) discloses a feedforward amplifier circuit comprising the method steps of operating a feed-forward amplifier having a signal

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cancellation loop (100, 102-106, 109, 108, 101) including a first gain (102), phase adjuster (103), a main amplifier (105) forming a portion of a main signal path (100, 102-107, 114, 115), a feed-forward signal path output (output of 113) for providing a feed-forward signal, an intermodulation cancellation loop (107, 111-114) connected to the feedforward signal path output (output of 113) including a second gain (111), phase adjuster (112), correctional amplifier (113), and a correctional coupler (114) for coupling the output (output of 113) of the correctional amplifier (113) to the main signal path (100, 102-107, 114, 115) downstream of the main amplifier (105), the method comprising the method steps of steering (J1-J3) the first gain (102) and phase adjuster (103) so as to minimize signal power at the feed-forward signal path output (output of 113) and the second gain (111) and phase adjuster (112) so as to minimize intermodulation downstream of the coupler, and when the signal power at the feed-forward signal path output (output of 113) and the intermodulation downstream of the correctional coupler (114) reach minimums, steering (J5-J7) both of the gain (111) and phase (112) adjusters so as to minimize the intermodulation downstream of the correctional coupler (114).

***Allowable Subject Matter***

Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Patent numbers (6,819,173; 6,388,515; 6,078,216) are the feedforward amplifiers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry Choe whose telephone number is (571) 272-1760.

  
**HENRY CHOE**  
**PRIMARY EXAMINER**

#1199